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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	:	09/384,182
Applicant	:	Kay, et al.
Filed	:	August 27, 1999
TC/A.U.	:	2167
Examiner	:	A. Fischer
Customer No.	:	20457

For: **ELECTRONIC COMMERCE SYSTEM ARCHITECTURE**

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an Appeal Brief, in triplicate, in the above-identified application.
[]   No additional fee is required.

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The fee has been calculated as shown below:

	NO. OF CLAIMS	HIGHEST PREVIOUSLY PAID FOR	EXTRA CLAIMS	RATE	FEE
Total Claims	32	32	0	x $18 =	$0
Independent Claims	3	3	0	x $84 =	$0
	Appeal Brief Fee				$330.00
	TOTAL FEE DUE				$330.00

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Respectfully submitted,

ANTONELLI, TERRY, STOUT AND KRAUS, LLP

Sterling W. Chandler
Registration No. 51,370

1300 North Seventeenth Street
Suite 1800
Arlington, Virginia 22209
Telephone: (703) 312-6600
Facsimile: (703) 312-6666

Date: June 8, 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of	:
Matthew W. KAY et al.	: Group Art Unit: 2167
Appln No.: 09/384,182	: Examiner: A. Fischer
Filed: August 27, 1999	:

For: ELECTRONIC COMMERCE SYSTEM ARCHITECTURE

APPEAL BRIEF

Honorable Commissioner of
 Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

June 8, 2004

Sir:

This Appeal Brief (in triplicate) is submitted in support of the Notice of Appeal filed April 8, 2004.

I. REAL PARTY IN INTEREST

Adelphia Communications Corporation, CitiCorp, Insight Communications Company, Inc., Motorola, Inc., OpenTV US Investments, Inc. and Meridian Carbontronics, LLC, have been assigned all rights in this application, as recorded at Reel 012935, Frame 0855. Accordingly, Adelphia Communications Corporation, CitiCorp, Insight Communications Company, Inc., Motorola, Inc., OpenTV US Investments, Inc. and Meridian Carbontronics, LLC, are the real parties in interest.

II. RELATED APPEALS AND INTERFERENCES

The present application was the subject of a prior Appeal, filed June 4, 2002. Responsive to a Supplemental Appeal Brief, filed on February 12, 2003, examination of the application was reopened by the Examiner.

III. STATUS OF CLAIMS

Claims 29-73 are pending. Claims 48-60 have been restricted and withdrawn by the Examiner, and accordingly claims 29-47 and 61-73 remain pending in this application. Each of claims 29-47 and 61-73 is under appeal.

IV. STATUS OF AMENDMENTS

A Preliminary Amendment canceling claims 1-28 and adding claims 29-60 was filed on August 23, 2000 and has been entered. An Amendment, modifying claim 37, was filed on September 4, 2001 and has been entered. An Amendment, modifying claims 29-47 and adding claims 61-72, was filed on July 23, 2003 and has been entered. An Amendment After Final, modifying claims 63, 67, 72, 73, was filed on January 8, 2004 and has not been entered.

V. SUMMARY OF INVENTION

In a preferred embodiment of the invention of claim 29, as shown in Figure 1 and described on pages 3-8, an electronic commerce system for use in networks having a plurality of network devices, each representing a respective network user, includes a first plurality of first servers (e.g. the two commerce application servers (CAS's) 16 at

the top of Figure 1). As also described on pages 7-8 with reference to Figure 2, each of

these CAS's 16 is configured to communicate with a first plurality of network devices

(e.g. set top boxes (STB's) 18 at the top of Figure 1) associated with a first network

(e.g. the two digital communications networks (DCN), which are part of the broadband

delivery systems (DBDS's) 26 at the top of Figure 1), to receive a first product related

request from one of the first plurality of network devices (e.g. one of the STB's 18), to

further transmit the received first product related request, to receive first product related

data in response to the further transmitted first product related request, and to transmit

the received first product related data to that one network device (e.g. the one STB 18)

in response to the received first product related request.

A second server (e.g. the head end database server (HEDS) 14 at the top of

Figure 1) has a first database storing the first product related data and second product

related data. As also described on pages 8-9 with reference to Figure 3, the HEDS 14

is configured to receive the further transmitted first product related request, to transmit

the stored first product related data to the one of the first plurality of first servers from

which that request is received, and to still further transmit the received first product

related request.

As also described on pages 9-10 with reference to Figure 4, a central server

(e.g. the Commerce Control Point Server (CCPS) 20 that forms part of the commerce

control point (CCP) 24) has a second database storing the first and the second product

related data. As described, the CCPS 20 is configured to transmit the first and second

product related data stored in the second database (e.g. the CCPS 20 database), and

to receive the still further transmitted first product related request and store the received

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request in the second database (e.g. the CCPS 20 database). The first and the second product related data stored in the first database (e.g. the HEDS 14 database) are the first and second product related data transmitted by the central server (e.g. the CCPS 20).

As recited in claim 30, and described in the above referenced disclosure, each of the first plurality of first servers (e.g. each of the CAS's 16 at the top of Figure 1) is further configured to transmit applications operable (e.g. by the STB's 18) to receive the product related data.

As recited in claim 31, the first product related request could be either a request to purchase a product or a request for information regarding the product itself.

As recited in claim 32, and described in the above referenced disclosure, the first product related request is receivable from and the first product related data is transmittable to the one network device (e.g. the one STB 18) only if the one network device (e.g. the one STB 18) is tuned to one of multiple broadcast channels (e.g. one of the channels available on the DBDS 26).

As required in claim 33, and described in the text on page 13 referencing Figure 6a, the first product related data transmitted to the one network device (e.g. the one STB 18) is viewable (e.g. via window 502) in conjunction with video programming broadcast over the one channel (e.g. via window 504).

As required in claim 34, the first plurality of network devices is a plurality of set top boxes (e.g. STB's 18). Claim 35 requires that the first network be a video broadcast network (e.g. DBDS 26). According to claim 36, the first product related data is different than the second product related data.

Claim 37 requires a second plurality of the first servers (e.g. the two CAS's 16 at the bottom of Figure 1). Each of these CAS's 16 is configured to communicate with a second plurality of network devices (e.g. the STB's 18 at the bottom of Figure 1) associated with a second network (e.g. the two DCN's, which are part of the DBDS's, 26 at the bottom of Figure 1), to receive a second product related request from one of the second plurality of network devices (e.g. one of the later STB's 18), to further transmit the received second product related request, to receive the second product related data in response to the further transmitted second product related request, and to transmit the received second product related data to that one network device (e.g. the one later STB 18) in response to the received second product related request.

Also required is a third server (e.g. the HEDS 14 at the bottom of Figure 1), having a third database storing the first and the second product related data. The latter HEDS 14 is configured to receive the further transmitted second product related request, to transmit the stored second product related data to the one of the plurality of second servers (e.g. one of the later CAS's 16) from which that request is received, and to still further transmit the received second product related request.

Additionally, the central server (e.g. the CCPS 20) is further configured to receive the still further transmitted second product related request and store that received request in the second database (e.g. the CCPS 20 database), and the first and the second product related data stored in the third database (e.g. the later HEDS 14 database) are the first and second product related data transmitted by the central server (e.g. the CCPS 20).

According to claim 38 (see description of Figure 2), the one first server (e.g. one

of the CAS's 16 at the top of Figure 1) includes a high priority queue and a low priority queue and is further configured to queue the received first product related request in one of the high and the low priority queues. The second server (e.g. the HEDS 14 at the top of Figure 1) is further configured to receive the further transmitted first product related request within a first time period after receipt of that request, if queued in the high priority queue and, to receive the further transmitted first product related request within a second time period after receipt of that request, if queued in the low priority queue, wherein the second time period being longer than the first time period. As recited in claim 39, the high priority queue is a real time queue, and the low priority queue is a batch queue. As required by claim 40, the first product related request includes information indicative of response priority, and the one first server (e.g. the one of the CAS's 16 at the top of Figure 1) is further configured to queue the first product related request received from the one network device (e.g. the one STB 18) in the one queue based on the indicated response priority.

According to claim 41, the first product related data stored in the first and the second databases correspond to a preference of a user associated with the one network device. Claim 42 requires that the second database (e.g. the CCPS 20 database) must be further configured to store video programming schedule data, and that the central server (e.g. the CCPS 20) be further configured to transmit the video programming schedule data stored in the second database. Additionally, the second server (e.g. the HEDS 14 at the top of Figure 1) be further configured to store the transmitted video programming schedule data in the first database (e.g. the HEDS 14 database), to generate trigger data based on the video programming schedule data

stored in the first database, and to transmit other data indicative of the availability of the

first product related data and the trigger data to the one first server (e.g. the one CAS

16 at the top of Figure 1).   The one first server (e.g. the one CAS 16) is further

configured to receive the transmitted other data and trigger data, to transmit the other

data and the trigger data to the one network station (e.g. the one STB 18 at the top of

Figure 1), responsive to which an icon is displayed at the one network station (see

Figure 5a icon 402) simultaneous with a display of broadcast video programming, and

to receive the first product related request from the one network device (e.g. the one

STB 18) responsive to the display of the icon.

As required in claim 43, the second database (e.g. the CCPS 20 database) is

further configured to store video programming schedule data, and the central server

(e.g. the CCPS 20) is further configured to transmit the video programming schedule

data stored in the second database. The second server (e.g. the HEDS 14 at the top of

Figure 1) is further configured to store the transmitted video programming schedule

data in the first database (e.g. the HEDS 14 database), and to transmit other data

indicative of the availability of the first product related data and the stored video

programming schedule data to the one first server (e.g. the one CAS 16 at the top of

Figure 1). The one first server (e.g. the one CAS 16) is further configured to receive the

transmitted other data and schedule data, to transmit the other data and the schedule

data to the one network station (e.g. the one STB 18 at the top of Figure 1), responsive

to which an icon is displayed at the one network station (e.g. the one STB 18)

simultaneous with a display of broadcast video programming, and to receive the first

product related request from the one network device (e.g. the one STB 18) responsive

to the display of the icon.

According to claim 44, the one first server (e.g. the one CAS 16 at the top of Figure 1) is further configured to receive user related data corresponding to a user of the one network devices (e.g. the one STB 18 at the top of Figure 1), and to further transmit the received user related data to the second server (e.g. the HEDS 14 at the top of Figure 1). The second server (e.g. the HEDS 14) is further configured to store the further transmitted user related data in the first database (e.g. the HEDS 14 database), and to transmit the stored user related data with the first product related request to the central server (e.g. the CCPS 20). The central server (e.g. the CCPS 20) is further configured to store the user related data transmitted by the second server (e.g. the HEDS 14) in the second database (e.g. the CCPS 20 database) in association with the stored first product related request.

As recited in claim 45, the user related information received by the one first server (e.g. the one CAS 16 at the top of Figure 1) includes a unique identifier of the one network resource server.

According to claim 46, the user related information received by the one first server (e.g. the one CAS 16 at the top of Figure 1) is received from at least one of the corresponding user and a broadcaster of video programming over the first network.

As required in claim 47, the central server (e.g. the CCPS 20) is further configured to aggregate the user related data transmitted by the second server (e.g. the HEDS 14 at the top of Figure 1), to generate a user profile based on the aggregated user related data, and to select the first product related information based on the generated user profile.

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In another preferred embodiment of the invention of claim 61 an electronic commerce system is provided. As shown in Figure 1 the system includes a central server (e.g. the CCPS 20) having a first database (e.g. the CCPS 20 database) storing first product related data and second product related data, a first server (e.g. the HEDS 14 shown at the top of Figure 1) having a second database (e.g. the HEDS 14 database) storing the first product related data and the second product related data, a first network (e.g. the DBDS shown at the top of Figure 1), a first plurality of network devices (e.g. the STB's 18 shown at the top of Figure 1) each connected to the first network (e.g. the DBDS) and representing a respective network user, and a first plurality of second servers (e.g. the CAS's 16 shown at the top of Figure 1).

As described on page 7-10, one of the first plurality of network devices (e.g. one of the STB's 18) transmits a first product related request. One of the first plurality of second servers (e.g. one of the CAS's 16) receives the transmitted first product related request and further transmits the received first product related request. The first server (e.g. the HEDS 14) receives the further transmitted first product related request, and responsive to this receipt, transmits the first product related data stored in the second database and still further transmits the received first product related request. The one second server (e.g. the one CAS 16) receives the first product related data transmitted by the first server (e.g. the HEDS 14), and transmits the received first product related data to the one network device (e.g. the one STB 18) in response to the received first product related request. The central server (e.g. the CCPS 20) receives and the still further transmitted first product related request in the first database (e.g. the CCPS 20 database).

As recited in claim 62, the system further comprises a third server e.g. the HEDS 14 shown at the bottom of Figure 1) having a third database (e.g. the bottom HEDS 14 database) storing the first product related data and the second product related data, a second network (the DBDS shown at the bottom of Figure 1); a second plurality of network devices (e.g. the STB's 18 shown at the bottom of Figure 1) each connected to the second network (e.g. the bottom DBDS) and each representing a respective network user, and a second plurality of the second servers (e.g. the CAS's 16 shown at the bottom of Figure 1) each connected to the second network.

Similar to the discussion of claim 61, one of the second plurality of network devices (e.g. one of the bottom STB's 18) transmits a second product related request, which is received by one of the second plurality of second servers (e.g. one of the bottom CAS's 16). The one second server (e.g. the one bottom CAS 16) further transmits the received second product related request. The third server (e.g. the bottom HED) receives the further transmitted second product related request, transmits the second product related data stored in the third database (e.g. the bottom HED database) in response to the received further transmitted second product related request, and still further transmits the received second product related request. The one of the second plurality of the second servers (e.g. the one bottom CAS 16) receives the second product related data transmitted by the third server (e.g. the bottom HED), and then transmits the received second product related data to the one of the second plurality of network devices (e.g. the one bottom STB 18) in response to the received second product related request. The central server (e.g. the CCPS 20) receives the still further transmitted second product related request and stores the received still further

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transmitted second product related request in the first database (e.g. the CCPS 20 database).

As required by claim 63 (see description of Figure 2), the one second server (e.g. the one CAS 16 at the top of Figure 1) (which has received the transmitted first product related request, further transmitted the first product related request, has received the first product related data transmitted by the first server, has transmitted the received first product related data to the one network device in response to the received first product related request) includes a high priority queue and a low priority queue. The one second server (e.g. the one top CAS 16) queues the received first product related request in one of the high and the low priority queues, and further transmits the first product related request after a first time period after receipt of that request, if queued in the high priority queue. If the received first product related request is queued in the low priority queue, the further transmission is after a second time period after receipt of that request, the second time period being longer than the first time period. According to claim 64, the high priority queue is a real time queue, and the low priority queue is a batch queue. As required by claim 65, the first product related request includes information indicative of response priority, and the one second server queues the received first product related request in the one queue based on the indicated response priority.

As recited in claim 66, the first product related data stored in the first and the second databases (e.g. the CCPS 20 database and the top HEDS 14 database) corresponds to a preference of the user represented by the one network device. Claim 67 requires that the first database (e.g. the CCPS 20 database) must be further store

video programming schedule data, that the central server (e.g. CCPS 20) transmit the

video programming schedule data stored in the first database. The first server (e.g. the

tops HEDS 14) receives the transmitted video programming schedule data, stores the

received video programming schedule data in the second database (e.g. the top HEDS

14 database), generates trigger data based on the video programming schedule data

stored in the second database, and transmits other data, which represents an icon

indicative of the availability of the first product related data, and the trigger data to the

one second server (e.g. the one top CAS 16). The one second server (e.g. the one top

CAS 16) receives the transmitted other data and trigger data, and further transmits the

received other data and trigger data. The one network station (e.g. the one top STB

18) receives the further transmitted other data and trigger data, displays the icon

represented by the received other data (see Figure 5a icon 402) simultaneously with

broadcast video programming in accordance with the received trigger data, and

transmits the first product related request based on the user activation of the displayed

icon.

As required in claim 68, the first database (e.g. the CCPS 20 database) stores

video programming schedule data, and the central server (e.g. the CCPS 20) transmits

the video programming schedule data stored in the first database (e.g. the CCPS 20

database). The first server (e.g. the top HEDS 14) receives the transmitted video

programming schedule data, stores the received video programming schedule data in

the second database (e.g. the top HEDS 14 database), and transmits other data, which

represents an icon indicative of the availability of the first product related data, and the

stored video programming schedule to the one second server (e.g. the one top CAS

16). The one second server (e.g. the one top CAS 16) receives the transmitted other

data and schedule data, and further transmits the received other data and schedule

data to the one network station (e.g. the one top STB 18), responsive to which an icon

is displayed at the one network station (e.g. the one top STB 18) simultaneous with a

display of broadcast video programming in accordance with the received video

programming schedule data, and transmits the first product related request based on

user activation of the displayed icon.

According to claim 69, the one second server (e.g. the one CAS 16 at the top of

Figure 1) receives user related data corresponding to the user represented by the one

network devices (e.g. the one STB 18 at the top of Figure 1), and transmits the received

user related data to the first server (e.g. the HEDS 14 at the top of Figure 1). The first

server (e.g. the top HEDS 14) receives the transmitted user related data, stores the

received user related data in the second database (e.g. the top HEDS 14 database),

and further transmits the user related data with the still further transmitted first product

related request to the central server (e.g. the CCPS 20).   The central server (e.g. the

CCPS 20) receives the further transmitted user related data, and stores the received

transmitted user related data in the first database (e.g. the CCPS 20 database) in

association with the stored first product related request.

As recited in claim 70, the central server (e.g. the CCPS 20) aggregates the user

related data stored in the first database (e.g. the CCPS 20 database), generates a user

profile based on the aggregated user related data, and selects the first product related

data based on the generated user profile.

As required by claim 71, the central server (e.g. the CCPS 20) transmits the first

and the second product related data stored in the first database (e.g. the CCPS 20 database) to the first server (e.g. the top HEDS 14). The first server (e.g. the top HEDS 14) receives the first and the second product related data transmitted by the central server (e.g. the CCPS 20) and stores the received first and second product related data in the second database (e.g. the top HEDS 14 database).

In still another preferred embodiment of the invention of claim 72, an electronic commerce system is provided that includes a first means, a second means, a third means, a fourth means, and a fifth means. The first means is for storing first product related data and second product related data. The second means is also for storing the first and the second product related data. As will be understood from the above, the present application discloses at least two means, each for storing the first and second product related data.

The third means is for receiving a first product related request from a first user, further transmitting the received first product related request, receiving first product related data in response to the further transmission of the first product related request, and is also for transmitting the received first product related data to the first user in response to the received first product related request. As also will be understood from the above, the present application discloses at least one means for achieving all these functions.

The fourth means is for receiving the further transmitted first product related request, transmitting the first product related data stored at the first means to the third means in response to the received further transmitted first product related request, and is also for still further transmitting the received first product related request. The

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present application discloses at least one means for achieving all these functions required to be performed by the fourth means.

The fifth means is for receiving the still further transmitted first product related request, and storing the received still further transmitted first product related request at the second means. Here too, it will be recognized that the application discloses at least one means for achieving the functions required of the fifth means.

According to claim 73, the system also includes sixth, seventh, and eighth means. The six means is for storing the first and the second product related data. As will be recognized from the above, the present application also discloses such a required sixth means.

The seventh means is for receiving a second product related request from a second user, further transmitting the received second product related request, receiving the second product related request in response to the further transmitted second product related request, and for transmitting the received second product related data to the second user in response to the received second product related request. Means for achieving these recited functions are also disclosed in the present application, as will be recognized from the above.

The eighth means is for receiving the further transmitted second product related request, transmitting the second product related data stored at the sixth means to the seventh means in response to the received further transmitted second product related request, and to still further transmit the received second product related request. Such an eighth means is also disclosed in the present application, as will be recognized from the above.

Also according to claim 73, the fifth means receives the still further transmitted second product related request and stores the received still further transmitted second product related request at the second means. This requirement also is disclosed in the instant application, as will be understood from the above.

VI. ISSUES

Whether claims 29-37, 41, 42, 44-46, 61, 62, 66, and 69-73 are anticipated under 35 U.S.C. §102(b), by PowerTV Inc., White Paper entitled "Applications and Service Infrastructure" (hereinafter "PowerTV") and Mimura (U.S. Patent 6,557,031); whether claims 29-37, 41, 42, 44-46, 61, 62, 66, and 69-73 are obvious under 37 U.S.C. §103(a) over PowerTV in view of Mimura; whether claims 38-40, which depend from claim 29, and claims 63-65, which depend from claim 61, are obvious under 35 U.S.C. §103(a) over PowerTV/Mimura in view of Condon (U.S. Patent 5,956,714); whether claims 43, 67, and 68 are obvious under 35 U.S.C. §103(a) over PowerTV/Mimura in view of Knudson (U.S. Patent 6,016,141); and whether claims 32, 63-65, 67, and 72 are indefinite under 35 U.S.C. §112, second paragraph.

VII. BRIEF DESCRIPTION OF THE REFERENCES

POWERTV

PowerTV discloses an system for delivering the Internet to a television. As disclosed, a plurality of servers are configured to communicate with a plurality of network devices associated with a network. On page 18 of the reference, a figure depicts a set-top box in communication with a broadcast carousel server, an email

server, and an HTTP proxy server. These three servers are described on page 18 as follows.

The broadcast carousel server 'webcasts' Web content to the set-top box. The email server "provides standard email functionality." The HTTP proxy server operates in multiple modes. It "acts as a normal 'Intranet' Web Server providing a repository for primarily local content," "acts as a buffer between external Internet Web sites and the set-top" by proving "parental control, enabling ratings control on accessed content in addition to access control lists," and it provides remote browser capability.

The PowerTV servers are configured to provide Internet access to a user via a television/set-top box combination. The particular content/type of information which the user accesses via the Internet is not a subject of the PowerTV reference. On page 3, the business needs of a cable television operator are generally discussed.

MIMURA

Mimura is directed to MPEG-TS packet video transmission technique for connecting multiple cable television networks via the Internet utilizing multiple server types. (see, generally, column 3, line 40, through column 4, line 28, and Figures 8 and 9).

CONDON

Condon is directed to a queuing technique. More particularly, Condon discloses a single queue that includes prioritized items, one item in the queue having a higher priority than another item in the same queue (see, generally, column 4, lines 40-53).

KNUDSON

Knudson is directed to a system for selecting a pay program for purchase from an interactive program guide. The interactive program guide determines whether the selected program is part of one or more packages of pay programs, and if so information regarding the package is displayed (see, generally, column 1, line 54, through column 2, line 25).

VIII. THE REJECTION

In the Final Official Action dated October 10, 2003, claims 29-37, 41, 42, 44-46, 61, 62, 66, and 69-73 stand rejected as anticipated under 35 U.S.C. §102(b), by PowerTV Inc., White Paper entitled "Applications and Service Infrastructure" (hereinafter "PowerTV") and Mimura (U.S. Patent 6,557,031); claims 29-37, 41, 42, 44-46, 61, 62, 66, and 69-73 stand rejected as obvious under 37 U.S.C. §103(a) over PowerTV in view of Mimura; claims 38-40 and 63-65 stand rejected as obvious under 35 U.S.C. §103(a) over PowerTV/Mimura in view of Condon (U.S. Patent 5,956,714); claims 43, 67, and 68 stand rejected as obvious under 35 U.S.C. §103(a) over PowerTV/Mimura in view of Knudson (U.S. Patent 6,016,141); and claims 32, 63-65, 67, and 72 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The rejections are respectfully traversed.

In the Final Official Action the Examiner acknowledges that not all claimed limitations have been afforded patentable weight. The Examiner's stated reasoning for this lack of consideration is because of the recitation of functional limitations. As best understood, with reference to Paper No. 29, page 12, line 20, through page 13, line 3,

and page 14, lines 8-13, the Examiner argues that any functional claim language following an occurrence of "configured to" in claims 29-46 has been ignored, i.e., not considered while searching and applying prior art. In support of his position the Examiner relies upon In re Gulack, In re Lowery, and Bristol-Myers Squibb Co. v. Ben Venue Laboratories, Inc..

In the Advisory Action dated April 14, 2004 the Examiner refused entry of claim amendments included in the Amendment After Final filed January 8, 2004. The Amendment After Final added no new matter. Rather, the amendment merely clarified certain claim language in two dependent claims (by repeating limitations from a parent claim in response to an Examiner question regarding scope of the two dependent claims), corrected a punctuation error in another dependent claim, and corrected a spelling error in still another dependent claim. However, the Examiner argues that the Amendments would "require further consideration."

It should be noted that the Examiner has not specifically addressed the claim 47 rejection in the Final Official Action, other than indicating on the cover sheet that it stands rejected.

IX. GROUPING OF CLAIMS

Appealed claims 29, 61, and 72 are in independent form, and claims 30-47 depend from claim 29, claims 62-71 depend from claim 61, and claim 72 depends from claim 72. However, the claims do not stand or fall together. At least, each of claims 29, 30, 31, 32, 33, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 61, 62, 63, 64, 65, 66, 67,

68, 69, 70, 71, and 72 recite features which form an independent basis for allowance. Hence, each of these claims stand and fall alone. Accordingly, claims 29, 34 and 35 stand and fall together, claim 30 stands and falls alone, claim 31 stands and falls alone, claim 32 stands and falls alone, claim 33 stands and falls alone, claim 36 stands and falls alone, claim 37 stands and falls alone, claim 38 stands and falls alone, claim 39 stands and falls alone, claim 40 stands and falls alone, claim 41 stands and falls alone, claim 42 stands and falls alone, claim 43 stands and falls alone, claim 44 stands and falls alone, claim 45 stands and falls alone, claim 46 stands and falls alone, claim 47 stands and falls alone, claim 61 stands and falls alone, claim 62 stands and falls alone, claim 63 stands and falls alone, claim 64 stands and falls alone, claim 64 stands and falls alone, claim 65 stands and falls alone, claim 66 stands and falls alone, claim 67 stands and falls alone, claim 68 stands and falls alone, claim 69 stands and falls alone, claim 70 stands and falls alone, claim 71 stands and falls alone, and claim 72 stands and falls alone.

X. ARGUMENT

Appellants respectfully traverse the rejections based on the prior art applied against the claims now pending and under appeal as well as the indefiniteness rejection under 35 U.S.C. §112, second paragraph. As discussed below in detail, it is respectfully submitted that the Examiner has not met the burden of proof in establishing that the appealed claims are anticipated or obvious. It is further respectfully submitted that the rejection relies upon art that has been combined without any motivation to do so. It is additionally respectfully submitted that the final rejection lacks the requisite

supporting factual basis and/or reasonable rationale, and accordingly cannot be understood. Further still, it is respectfully submitted that the art applied in rejecting the claims neither teaches nor suggests the claimed invention. It is also respectfully submitted that recited limitations have been ignored and that the relied upon art has been construed in a manner inconsistent with its own teaching and that the rejection is at best based on an improper hindsight reconstruction of the claimed invention. And, it is also respectfully submitted that all of the pendent claims are definite.

1. THE EXAMINER HAS FAILED TO ESTABLISH A PRIMA FACIE CASE

The initial burden of establishing a basis for denying patentability to a claimed invention rests upon the examiner. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985); In re Piasecki, 745 F.2d 1468, 223 USPQ 785 (Fed. Cir. 1984).

The limitations required by the claims cannot be ignored. See In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). All claim limitation, including those which are functional, must be considered. See In re Oelrich, 666 F.2d 578, 212 USPQ 323 (CCPA 1981). There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. See In re Swinehart, 439 F.2d 210, 169 USPQ 226 (CCPA 1971). Functional descriptive material is a limitation in the claim and must be considered and addressed in assessing patentability. See In re Dembiczak, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999). Hence, all words in a claim must be considered in deciding the patentability of that claim against the prior art. Each word in a claim must be given its proper meaning,

as construed by a person skilled in the art. Where required to determine the scope of a

recited term, the disclosure may be used. See In re Barr, 444 F.2d 588, 170 USPQ 330

(CCPA 1971).

The Examiner must provide sufficient factual basis or rationale as to how

features of the invention recited in the claims are taught or suggested in the applied art.

Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

That is, objective evidence must be presented by the Examiner in support of the

rejection. Without such support, the rejection is improper per se.

It is respectfully submitted that the Examiner has failed to establish a prima facie

case for the rejection. More particularly, the Examiner has ignored limitations recited in

the claims, has failed to provide objective support or reasonable rationale for the

rejections, and has applied art in a manner inconsistent with its teachings.

Introduced above, the Examiner acknowledges that certain claim limitations have

not been afforded patentable weight, relying upon In re Gulack, In re Lowry, and Bristol-

Myers Squibb Co. v. Ben Venue Laboratories, Inc. in arguing that "functional limitations"

should not be afforded patentable weight. The Examiner's reliance upon these cases is

not understood, for, while In re Gulack and In re Lowry do mention functional

limitations, they cases certainly do not teach that functional limitations should not be

given patentable weight.

In re Gulack teaches that nonfunctional descriptive material cannot render

nonobvious an invention that would have otherwise been obvious. In re Lowry teaches

that a claim to data structure stored on a computer readable medium that increases

computer efficiency is statutory. Finally, the Examiner-relied upon portion of, or any of

the remainder of, Bristol-Myers Squibb Co. have nothing to do with functional limitations. Rather, this case concerns claim preamble language that merely states a purpose and intended result not being read into the body of the claim.

Also introduced above, the Examiner now expressly acknowledges that certain claim limitations the Examiner finds to be 'functional' have not been given patentable weight. This explains the continued lack of a claim-by-claim analysis (let alone element-by-element analysis) of the present application in view of any prior art throughout prosecution. As best understood, regarding claims 29-46, the Examiner has not afforded any claim language following a recitation of "configured to" patentable weight.

This position is contrary to the case law discussed above, as well as the United States Patent and Trademark Office's Manual of Patent Examining Procedure. According to In re Swinehart and In re Dembiczak functional limitations must be afforded patentable weight in determining patentability, just like any other express limitation. Thus, by not affording patentable weight to certain claim limitations, the Examiner has failed to meet his burden in examining the claims.

Regarding claims 61-71, these claims do not include the functional "configured to" language of claims 29-47. That is, claims 61-71 recite a system including components, i.e., a central server, a first server, etc., **performing** functions. However, the Examiner rejects these claims on the same grounds as claims 29-46, even though they do not include the "configured to" language to which the Examiner is contentious.

The rejection of claims 61-71 cannot be understood, especially in light of the Examiner's statement in the final Official Action that "[t]he Examiner admits that *if*

Applicants actually claimed their computer performing the recited functions, the

Representative's computer would not meet those limitations" (see page 17, lines 8-10).

Claims 61-71 expressly claim a system performing functions similar to those recited in

claims 29-47. The Examiner has not pointed to **any** prior art containing components

actually **performing** the limitations expressly mandated by claims 61-71. Rather, the

Examiner has combined the rejection of these claims with the rejection of claims 29-46,

in which the Examiner acknowledges that similar features to those in claims 61-71 have

not been given patentable weight.

In view of the above, all one can assume is that the Examiner has chosen not to

give patentable weight to limitations in claims 61-71 (not recited in functional terms)

similar to functional limitations in claims 29-46. By not considering all the limitations of

claims 61-71 the Examiner has failed to meet his burden in examining these claims.

Regarding claims 72 and 73, these claims are cast in mean-plus-function

language, which unequivocally is an acceptable format. The Examiner combines the

prior art rejection of these claims with the rejection of claims 29-47 and 60-71. Again,

this rejection is not understood, as claims 72 and 73 include similar functional

limitations to those in claims 29 and 37. That is, the Examiner has acknowledged that

the functional limitations of claims 29 and 37 have not been given patentable weight.

Thus, how the Examiner can reject claims 72 and 73, which only recite functional

limitations not considered by the Examiner, is, at best, not clear. The Examiner has not

pointed to anything in the applied art disclosing or even suggesting the means for

achieving the required functions of claims 72 and 73. Thus, because the Examiner has

not addressed the express functional limitations of the means-plus-function claims 72

and 73, the Examiner has failed to meet his burden in examining these claims, along with the other pending claims.

Furthermore, the Final Official Action fails to address limitations in claims 45, 46, 47, and 70 (which do not include the "configured to" language to which the Examiner objects). Hence, it can only be concluded that the specific features and limitations of claims 45, 46, 47, and 70 have been completely ignored by the Examiner.

Claim 38 requires that the one first server include a high priority queue and a low priority queue and be further configured to queue the received first product related request in one of the high and the low priority queues. Also required is that the second server be further configured to receive the further transmitted first product related request within a first time period after receipt of that request, if queued in the high priority queue, to receive the further transmitted first product related request within a second time period after receipt of that request, if queued in the low priority queue, wherein the second time period being longer than the first time period.

Similarly, claim 63 requires that the one second server include a high priority queue and a low priority queue and queue the received first product related request in one of the high and the low priority queues. Also required is that the one second server further transmit first product related request within a first time period after receipt of that request, if queued in the high priority queue, or within a second time period after receipt of that request, if queued in the low priority queue, wherein the second time period being longer than the first time period.

Claims 39 and 40 recite further limitations relating to the high and low priority queues of claim 38, including the claim 40 limitation that the first product related

request includes information indicative of response priority; and the one first server be further configured to queue the first product related request received from the one network device in the one queue based on the indicated response priority.

Similarly, claims 64 and 65 recite further limitations relating to the high and low priority queues of claim 63, including the claim 64 limitation that the first product related request includes information indicative of response priority; and the one second server queue the first product related request received from the one network device in the one queue based on the indicated response priority.

While acknowledging that PowerTV does not disclose priority queues, the Examiner proposes to modify PowerTV based on the teachings of Condon to result in the claimed invention.

However, the Examiner fails to provide any guidance explanation as to where in Condon, or the applied combination, the requirements of claim 38-40 or 63-65 are suggested. Rather, the Examiner rejects each of claims 38-40 and 63-65 with the omnibus statement "Condon teaches using priority based queues in a plurality of servers to increase efficiency in a database."

It is respectfully submitted that, contrary to the Examiner's asserted conclusion, there is nothing within Condon or the applied combination to suggest the features of claims 38-40 or 63-65. For example, Condon does not even disclose low and high priority queues, as required by each of claims 38-40 and 63-65. Rather, Condon teaches a single queue that includes prioritized items, one item in the queue having a higher priority than another item in the same queue (see, generally, column 4, lines 40-53).

Claim 37 requires a second plurality of the first servers, with each of these servers configured to communicate with a second plurality of network devices associated with a second network, to receive a second product related request from one of the second plurality of network devices, to further transmit the received second product related request, to receive the second product related data in response to the further transmitted second product related request, and to transmit the received second product related data to that one network device in response to the received second product related request. Also required is a third server, having a third database storing the first and the second product related data, and which is configured to receive the further transmitted second product related request, to transmit the stored second product related data to the one of the plurality of second servers from which that request is received, and to still further transmit the received second product related request. Finally, the central server is recited to be further configured to receive the still further transmitted second product related request and store that received request in the second database, and the first and the second product related data stored in the third database are the first and second product related data transmitted by the central server.

Similarly, claim 62 requires a second plurality of the second servers, with each of these servers connected to a second network to which a second plurality of network devices are also connected. One of the second plurality of second servers receives a second product related request from one of the second plurality of network devices, further transmits the received second product related request, receives the second product related data in response to the further transmitted second product related

request, and transmits the received second product related data to that one network device in response to the received second product related request. Also required is a third server, having a third database storing the first and the second product related data, which receives the further transmitted second product related request, transmits the stored second product related data to the one of the plurality of second servers from which that request is received, and still further transmits the received second product related request. Finally, the central server is recited to receive the still further transmitted second product related request and store that received request in the first database, and the first and the second product related data stored in the third database are the first and second product related data transmitted by the central server.

In support of the asserted anticipation and obviousness rejection of claims 37 (and presumably claim 62), the Examiner offers only that the "second plurality of first servers and a third server are inherently disclosed since the PowerTV network is connected to the Internet and Internet contains countless servers", and that "if not inherent, it would have been obvious ... to modify PowerTV as taught by Mimura include the duplicate servers and networks," since "[s]uch a modification would have merely expressly disclosed that which is inherent."

Hence, one is only left to wonder where such servers might be disclosed in PowerTV, why such servers would be inherent just because the PowerTV network is connected to the Internet, how one could possibly combine PowerTV and Mimura, or what would result from such a combination. Furthermore, if there is no such direct or inherent disclosure in PowerTV, why would it necessarily be obvious to modify PowerTV to include the required servers? Additionally, the Examiner never addresses

the fact that claim 37 (as well as claim 63) requires additional new elements within the system which are configured to perform (or perform, as in claim 63) functions different than those of the elements recited in parent claim 29 (parent claim 61), as well as additional limitations on the central server of parent claim 29 (parent claim 61). Hence, the rejection lacks the requisite support.

Claims 32 requires that the first product related request is receivable from and the first product related data is transmittable to the one network device only if the one network device is tuned to one of multiple broadcast channels.

The Examiner relies on PowerTV, page 3, and asserts that "the operator is allowed to choose the content of the programming" in support of the rejection.

However, it is unclear how an operators choice of programming content could anticipate a requirement that the product related request be receivable from and product related data be transmittable to a network device only if the network device is tuned to one of multiple broadcast channels, and the Examiner, notwithstanding being requested to do so, fails to provide any rationale as to the basis for the asserted conclusion.

Claim 33, which depends from claim 32, requires that the first product related data transmitted to the one network device be viewable in conjunction with video programming broadcast over the one channel.

As best understood, the Examiner relies on the discussion of an operating system for a set-top box beneficially including support for both broadcast and two-way system service (page 12) in rejecting claim 33.

However, how this disclosure could anticipate the requirement that transmitted product related data be viewable in conjunction with video programming broadcast is unclear. Here again, the Examiner, notwithstanding being requested to do so throughout prosecution of the application, fails to provide any rationale as to the basis for the asserted conclusion.

Claims 41 and 66 require the first product related data stored in the first and the second databases correspond to a preference of a user associated with the one network device.

The Examiner argues, "the server stores the user's information accessible with a password." The Examiner provides no indication of even which PowerTV server is being referred to, which portion of the PowerTV reference is contended to disclose the required limitations, or where in the applied art a user preference is even mentioned.

The Examiner's position simply cannot be understood. How is the disclosed use of a password to generally secure stored information relevant to the storage of product related data which corresponds to a user preference being stored in two different databases? Again, notwithstanding prior requests for clarification, the final Official Action fails to provide any explanation as to the basis for the rejection.

The Examiner fails to specifically address the basis for the rejection of claims 42, 44, 69, and 71 in the final Official Action. As such, the rejection cannot reasonably be understood, and thus is improper. Accordingly, the Examiner has not met his burden in Examining claims 42, 44, 69, and 71.

Independent claim 29 requires, *inter alia*, a first plurality of first servers, each configured to communicate with a first plurality of network devices associated with a

first network, to receive a first product related request from one of the first plurality of

network devices, to further transmit the received first product related request, to receive

first product related data in response to the further transmitted first product related

request, and to transmit the received first product related data to that one network

device in response to the received first product related request. As discussed above,

the Examiner has not given patentable weight to any of the functional language

associated with the first plurality of servers. As such, the Examiner, as can best be

understood, contends that any servers on the Internet meet the required first plurality of

first servers. Thus, the Examiner has rejected claim 29 without due consideration of

express claim limitations.

Claim 29 also requires, *inter alia*, (i) a second server, having a first database

storing the first product related data and second product related data, configured to

receive the further transmitted first product related request, to transmit the stored first

product related data to the one of the first plurality of first servers from which that

request is received, and to still further transmit the received first product related

request, and (ii) a central server, having a second database storing the first and the

second product related data, configured to transmit the first and second product related

data stored in the second database, and to receive the still further transmitted first

product related request and store the received request in the second database.

The Examiner does not provide any guidance as to where in the applied art the

required second server is disclosed. That is, he merely repeats (only a portion of) the

claim language directed to the second server and argues that such is taught by

PowerTV. Further, he also states, without any supporting rationale, that the first

product related data is "descriptions of products" and that the transmission of the stored

first product related data is "either via email or the WWW in HTML". Where in the

applied art such is taught can only be guessed.

Likewise, the Examiner does not provide any guidance as to where in the applied

art the required central server is disclosed. Again, the Examiner merely repeats (a

portion) of the claim language directed to the central server and argues that such is

taught by PowerTV. Again, where in the applied art such a central server is taught can

only be guessed.

At best, it would appear that the Examiner has either based the rejection of

independent claim 29 on an improper hindsight reconstruction or mere speculation.

It should also be reiterated that the Examiner never expressly addresses claims

61-73 in the final Official Action. That is, as best understood, the Examiner rejects

claims 61-73 upon the same grounds as claims 29-47.

In view of the above, it is respectfully submitted that the Examiner has failed to

establish a *prima facie* basis for the rejection.

2. THERE IS NO MOTIVATION TO COMBINE THE ART AS PROPOSED BY THE EXAMINER

It is incumbent upon the Examiner to provide a basis in fact and/or cogent

technical reasoning to support the conclusion that one having ordinary skill in the art

would have been motivated to combine references to arrive at a claimed invention.

Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). In

so doing, the Examiner is required to make the factual determinations set forth in Graham

v. John Deere Co. of Kansas City, 383 U.S. 1, 148 USPQ 459 (1966), **and** to provide a

reason why one having ordinary skill in the art would have been led to modify the prior art

reference to arrive at the claimed invention. Ashland Oil, Inc. v. Delta Resins &

Refractories, Inc., 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985). Such a reason must

stem from some teaching, suggestion or inference in the prior art as a whole or

knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v.

Rudkin-Wiley, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta

Resins & Refractories, Inc., 776 F.d 281, 227 USPQ 657 (Fed. Cir. 1985); ACS Hospital

Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 USPQ 929 (Fed. Cir. 1984); In

re Sernaker, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983).

The Examiner alternatively rejects claims 29-37, 41, 42, 44-46, 61, 62, 66, and 69-

73 as being obvious under 35 U.S.C. §103(a) over PowerTV in view of Mimura.

The Examiner argues "it is the Examiner principle position that the second plurality

of first servers and a third server are inherently disclosed since the PowerTV network is

connected to the Internet and Internet contains countless servers. However, if not

inherent, it would have been obvious … to modify PowerTV as taught by Mimura include

the duplicate servers and networks. Such a modification would have merely expressly

disclosed that which is inherent." Thus, as best understood, the Examiner only addresses

claim 37 (and presumably claim 62) in arguing the PowerTV/Mimura combination.

The Examiner's position is entirely unclear. The Examiner does not point to any portion

of Mimura, let alone PowerTV, that discloses the requirements of claim 37. Further, the

Examiner does not offer any explanation as to how PowerTV and Mimura could

possibly be combined. What the results of a combination of the MPEG-TS packet

video transmission technique of Mimura with the PowerTV reference would be is

entirely speculative. Further, the Examiner's only explanation of what might motivate

such a combination is that "[s]uch a modification would have merely expressly disclosed

that which is inherent". However, one can only ask what is inherent.

The Examiner also spends two pages arguing "new or unexpected results." The

Examiner concludes "that Applicants have not asserted any new or unexpected results

of their server system. Absent such new or unexpected results, such modifications

either increasing or decreasing the number of servers or even reassigning tasks to

different servers would have helped maintain benefits from economies of scale in

addition to offering increased security, excellent data management, fast response, and

room for expansion while reducing both operating costs and capital costs." This

evidences a clear misunderstanding of the presently claimed invention on the part of

the Examiner. Nowhere in the application or the prosecution history have Applicants

ever argued that the novelty of the present invention lies in a modification of a number

of servers or assignment of tasks. There does not exist in the prior art any server

system (of any number of servers) which functions in the manner of the presently

claimed system.

Accordingly, it is respectfully submitted that a combination of these references

would not produce the claimed invention, and that there is no motivation for one of

ordinary skill in the art to combine, as the Examiner proposes, in the rejection of claim 29.

Claims 38-40, which depend from claim 29, stand rejected under 35 U.S.C.

§103(a) as being obvious over PowerTV/Mimura in view of Condon (U.S. Patent

5,956,714). Presumably, the Examiner also rejects claims 63-65, which depend from claim 61 upon the same grounds.

The Examiner acknowledges that the PowerTV/Mimura combination does not teach priority queues. The Examiner looks generally to Condon for such features, though the Examiner has failed to provide any guidance as to where in Condon, or the applied combination, the requirements of claim 38-40 are disclosed. The Examiner rejects each of claims 38-40 with the omnibus statement "Condon teaches using priority based queues in a plurality of servers to increase efficiency in a database."

Although it is acknowledged that Condon teaches a technique for queuing, it is entirely unclear what would motivate one to attempt to combine Condon's teaching with those of PowerTV, Mimura, or a combination of the two. More particularly, both PowerTV and Mimura lacks any suggestion of a need for a queue. Condon teaches a single queue that includes prioritized items, one item in the queue having a higher priority than another item in the same queue (see, generally, column 4, lines 40-53), but lacks any suggestion that such a queue could be beneficially implemented in a system such as that described in PowerTV or Mimura.

Hence, there would appear to be nothing within the applied art references to motivate the combination, or to suggest modification of the PowerTv system and/or the Mimura system to include the Condon queue. Further, the Examiner's only explanation of what might motivate such a combination is that "[s]uch a modification would have reduced the processing time for high priority queries in the database". However, one can only ask why and in what database.

Accordingly, it is respectfully submitted that there is no motivation for one of ordinary skill in the art to combine, as the Examiner proposes, in the rejection of claims 38-40 (and presumably in the rejection of claims 63-65).

Claims 43, 67, and 68 stand rejected under 35 U.S.C. §103(a) as being obvious over PowerTV/Mimura in view of Knudson (U.S. Patent 6,016,141).

The Examiner acknowledges that the PowerTV/Mimura combination does not disclose transmitting video programming schedule data.

The Examiner looks generally to Knudson for such features, though the Examiner has failed to provide any guidance as to where in Knudson, or the applied combination, the requirements of claim 43, 67, and 68 are disclosed. The Examiner rejects each of these claims with the omnibus statement "Knudson teaches transmitting video programming schedule data. Therefore it would have been obvious ... to modify PowerTV as taught by Knudson to include transmitting video programming schedule data and other. Such a modification would have reduced the processing time for high priority queries in the database."

Although it is acknowledged that Knudson teaches transmitting video programming schedule data, it is entirely unclear what would motivate one to attempt to combine Knudson's teaching with those of PowerTV, Mimura, or a combination of the two.

There is nothing within the applied art references to motivate the combination, or to suggest modification of the PowerTv system and/or the Mimura system to include the Knudson data. Further, the Examiner's only explanation of what might motivate such a combination is that "[s]uch a modification would have reduced the processing time for

high priority queries in the database". However, one can only ask why and in what database.

Accordingly, it is respectfully submitted that there is no motivation for one of ordinary skill in the art to combine, as the Examiner proposes, in the rejection of claims 43, 67, and 68.

3. THE APPLIED REFERENCE FAILS TO TEACH THE CLAIMED INVENTION

Anticipation, under 35 U.S.C. § 102, requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference. Although anticipation requires that only that the claim under attack "read on" something disclosed in the reference, all limitations of the claim must be found in the reference, or "fully met" by it. See Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983).

A rejection under 35 U.S.C. §102 requires the disclosure in a single reference of each element of a claimed invention. Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc., 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). Moreover, in rejecting a claim under 35 U.S.C. §102, the Examiner is required to identify where in an applied reference each feature of a claimed invention is disclosed. In re Rijckaert, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).

Claims 29-37 and 41, 42, 44-46, 61, 62, 66, and 69-73 stand rejected under 35 U.S.C. §102(b) as anticipated by PowerTV Inc., White Paper entitled "Applications and Service Infrastructure" (hereinafter "PowerTV") and Mimura.

It is respectfully submitted that the applied art fails to teach the invention, as recited in claims 29-37 and 41, 42, 44-46, 61, 62, 66, and 69-73 for reasons discussed above in connection with the lack of establishment of a prima facie basis for the anticipation rejection.

Additionally, it is respectfully submitted that the Examiner has failed to identify any teaching whatsoever of features of independent claim 29, independent claim 61, or independent claim 72 as well as the dependencies of these claims rejected as anticipated over the applied prior art. Further, the Examiner has failed to specifically address any of claims 61-72 in the rejection.

Features identified, for example, include a second server, having a first database and a central server having a second database which both store the same data, i.e. the first product related data and second product related data. As another example, the Examiner has also failed to identify any teaching within the applied prior art of such a central server which also transmits the first and second product related data which is stored in the first database, and which receives product related request transmitted from the second server and store the received request in the second database.

As yet another example, claim 30 requires that each of the first plurality of servers be configured to transmit applications operable to receive the product related data. The Examiner contends that the disclosure of downloaded Java applications on page 23 of PowerTV teaches this feature.

However, while it is acknowledged that PowerTV does disclose transmitting applications to set-top boxes, the applied art lacks any disclosure of a first plurality of

servers being configured to transmit applications, or that transmitted applications could be operable to receive product related data.

Claim 31 requires that the first product related request be either a request to purchase a product or a request for information regarding the product itself.

The Examiner rejects this claim, asserting "purchase a sweater or information via compuserve" in support. Not only is the basis for rejection not understood, the applied PowerTV reference does not disclose particulars regarding information which might be accessed, let along a system configured to transmit and/or receive a product related request.

Claim 36 requires that the first product related data be different than the second product related data.

The Examiner concludes that this is "inherent."

One can only asked inherent to what? PowerTV does not disclose either first product related data or second product related data, hence how these features could be inherent is unclear.

With further reference to claim 37, in addition to the points discussed above in addressing the lack of a *prima facie* basis for the rejection, it will be understood PowerTV does not teach either the required first plurality of first servers or the second server. Thus, even if the second plurality of first servers were a duplication of the first plurality of first servers (which it is respectfully submitted is not the case), and even if the third server was a duplication of the second serve (which it is respectfully submitted is not the case), claim 37 would nonetheless patentably distinguish over PowerTV.

Accordingly it is respectfully submitted that claims 29-37 and 41, 42, 44-46, 61, 62, 66, and 69-73 are not anticipated by the applied prior art.

4. THE APPLIED REFERENCES FAIL TO SUGGEST THE CLAIMED INVENTION

In rejecting claims under 35 U.S.C. 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); In re Warner, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967). It also is incumbent upon the Examiner to provide a basis in fact and/or cogent technical reasoning to support the conclusion that one having ordinary skill in the art would have been motivated to combine references to arrive at a claimed invention. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). In so doing, the Examiner is required to make the factual determinations set forth in Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 148 USPQ 459 (1966), **and** to provide a reason why one having ordinary skill in the art would have been led to modify the prior art reference to arrive at the claimed invention. Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985). Such a reason must stem from some teaching, suggestion or inference in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 USPQ 929 (Fed. Cir. 1984); In re Sernaker, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983). Inherency requires certainty, not speculation. In re Rijckaert, 9 F.3rd 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); In re

King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986); W. L. Gore & Associates, Inc. v.

Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983); In re Oelrich, 666 F.2d

578, 212 USPQ 323 (CCPA 1981); In re Wilding, 535 F.2d 631, 190 USPQ 59 (CCPA

1976). Objective evidence must be relied upon to defeat the patentability of the claimed

invention. Ex parte Natale, 11 USPQ2d 1222 (BPAI 1988).

In determining obviousness, the inquiry is not whether each element existed in the

prior art, but whether the prior art made obvious the invention as a whole for which

patentability is claimed. Hartness Int'l, Inc. v. Simplimatic Eng'g Co., 819 F.2d 1100, 2

USPQ2d 1826 (Fed. Cir. 1987). It is impermissible to pick and choose from any one

reference only so much of it as will support a given position, to the exclusion of other

parts necessary to the full appreciation of what such reference fairly suggests to one of

ordinary skill in the art. In re Wesslau, 353 F.2d 238, 147 USPQ 391 (CCPA 1951).

Piecemeal reconstruction of prior art patents is improper, In re Kamm, 452 F.2d 1052,

172 USPQ 298 (CCPA 1972). The Examiner must give adequate consideration to the

particular problems and solution addressed by the claimed invention. Northern Telecom,

Inc. v. Datapoint Corp., 908 F.2d 931, 15 USPQ2d 1321 (Fed. Cir. 1990); In re

Rothermel, 276 F.2d 393, 125 USPQ 328 (CCPA 1960).

The fact that the prior art could be modified so as to result in the combination

defined by the claims does not make the modification obvious unless the prior art

suggests the desirability of the modification. In re Deminski, 796 F.2d 436, 230 USPQ

313 (Fed. Cir. 1986). The test is what the combined teachings would have suggested to

those of ordinary skill in the art. In re Keller, 642 F.2d 413, 208 USPQ 817 (CCPA 1981).

Simplicity and hindsight are not proper criteria for resolving obviousness, In re Warner,

supra. The proper approach to the issue of obviousness is whether the hypothetical person of ordinary skill in the art, familiar with the references, would have found it obvious to make a structure corresponding to what is claimed. In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Sernaker, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983). Hindsight obviousness after the invention has been made is not the test. In re Carroll, 601 F2d 1184, 202 USPQ 571 (CCPA 1979). The reference, viewed by itself and not in retrospect, must suggest doing what applicant has done. In re Shaffer, 229 F2d 476, 108 USPQ 326 (CCPA 1956); In re Skoll, 523 F2d 1392, 187 USPQ 481 (CCPA 1975).

Again, the issue is not whether it is within the skill of the artisan to make the proposed modification but, rather, whether a person of ordinary skill in the art, upon consideration of the references, would have found it obvious to do so. The fact that the prior art could be modified so as to result in the combination defined by the claims would not have made the modification obvious unless the prior art suggests the desirability of the modification. See In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984), In re Deminski, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986), In re Keller, supra. See In re Laskowski, F2d., 10 USPQ2d 1397 (CAFC 1989).

Claims 29-37, 41, 42, 44-46, 61, 62, 66 and 69-73 stand rejected under 35 U.S.C. §103(a) as being obvious over PowerTV in view of Mimura. Claims 38-40 and 63-65 stand rejected under 35 U.S.C. §103(a) as being obvious over PowerTV/Mimura in view of Condon (U.S. Patent 5,956,714). Claims 43, 67, and 68 stand rejected under 35 U.S.C. §103(a) as being obvious over PowerTV/Mimura in view of Knudson (U.S. Patent 6,016,141).

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It is respectfully submitted that the applied art fails to make obvious the invention, as recited in claims 29-73 for reasons discussed above in connection with the lack of establishment of a prima facie basis for the rejection, with the lack of motivation to combine the art as proposed by the Examiner, and with the applied references failing to teach the claimed invention.

Accordingly it is respectfully submitted that claims 29-73 are non-obvious over the applied prior art.

4. THE REJECTION IS BASED ON EITHER AN IMPROPER HINDSIGHT RECONSTRUCTION OF THE INVENTION BASED ON THE APPLICATIONS OWN TEACHINGS OR ON PURE SPECULATION

Hindsight obviousness after the invention has been made is not the test. In re Carroll, 601 F2d 1184, 202 USPQ 571 (CCPA 1979). The reference, viewed by itself and not in retrospect, must suggest doing what applicant has done. In re Shaffer, 229 F2d 476, 108 USPQ 326 (CCPA 1956); In re Skoll, 523 F2d 1392, 187 USPQ 481 (CCPA 1975).

Inherency requires certainty, not speculation. In re Rijckaert, 9 F.3rd 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); In re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986); W. L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983); In re Oelrich, 666 F.2d 578, 212 USPQ 323 (CCPA 1981); In re Wilding, 535 F.2d 631, 190 USPQ 59 (CCPA 1976). Objective evidence must be relied upon to defeat the patentability of the claimed invention. Ex parte Natale, 11 USPQ2d 1222 (BPAI 1988).

As discussed in detail above, the appealed claims have been rejected without objective factual support or rational. The prior art cited in support of the rejections has been applied in a manner inconsistent with its own teachings. Combinations have been asserted for which no motivation exists. Express limitations set forth in the claims have been completely or effectively ignored. The evidence shows that there is nothing in the applied prior art to support the Examiner's position that the present claims are anticipated and/or obvious. Hence, at best, it can only be concluded that the rejection of the claims, as set out in the Final Official Action, reflects either an improper hindsight reconstruction of the invention based on the teachings of the subject application itself or pure speculation on the part of the Examiner.

5. THE CLAIMS ARE DEFINITE

An analysis under 35 U.S.C. § 112 begins with a determination of whether the claims do, in fact, set out and circumscribe a particular area with a reasonable degree of precision and particularity. Claim language is viewed not in a vacuum, but in light of the teachings of the prior art and of the application disclosure as it would be interpreted by one possessing the ordinary level of skill in the art. In re Johnson, 558 F.2d 1008, 194 USPQ 187 (CCPA 1977); In re Moore, 439 F.2d 1232, 169 USPQ 236 (CCPA 1971).

A decision on whether a claim is invalid under 35 U.S.C. § 112, second paragraph, requires a determination of whether those skilled in the art would understand what is claimed when the claim is read in light of the specification. Seattle Box Co. v. Industrial Crating & Packing, 731 F.2d 381, 385, 221 USPQ 568, 574 (Fed.

Cir. 1984). In determining definiteness, no claim may be read apart from and

independent from the disclosure on which it is based. In re Cohn, 169 USPQ 95, 98

(CCPA 1971). In re Kroebel, 183 USPQ 610, 612 (CCPA 1974). A claim must be

considered as a whole to determine whether the claim apprises one of ordinary skill in

the art of its scope. Soloman v. Kimberly-Clark Corp., 216 F.3d 1372, 55 USPQ 2d

1279 (Fed. Cir. 2000), Morton Int'l, Inc. v. Cardinal Chem. Co., 5 F.3d 1464, 28 USPQ

2d 1190 (Fed. Cir. 1993).

A fundamental principle of 35 U.S.C. § 112, second paragraph, is that applicants

are their own lexicographers. They can define in the claims what they regard as their

invention essentially in whatever terms they choose so long as the terms are not used

in ways that are contrary to accepted meanings in the art. A claim may not be rejected

solely because of the type of language used to define the subject matter for which

patent protection is sought. In re Swinehart, 439 F.2d 210, 160 USPQ 226 (CCPA

1971).

Claims 32, 63-65, 67, and 72 stand rejected under 35 U.S.C. §112, second

paragraph, as being indefinite.

Regarding claim 72, the Examiner argues that it is unclear what structure

corresponds to the "...means for storing the first product...".

Each means recited in claims 72 and 73 (means-plus-function claims) is clearly

supported in the specification. For example, Figures 1-4 and pages 3-10 of the present

application disclose examples of means for achieving he claimed functions. Regarding

claim 72, an electronic commerce system includes a first server (e.g. a commerce

application server (CAS) 16 at the top of Figure 1). This first server corresponds to the

recited third means in claim 72. As also described on pages 7-8 with reference to

Figure 2, the CAS communicates with a first network device (e.g. a set top box (STB)

16 at the top of Figure 1), receives a first product related request from the network

device (e.g. the STB), further transmits the received first product related request,

receives first product related data in response to the further transmitted first product

related request, and transmits the received first product related data to the network

device (e.g. the STB) in response to the received first product related request.

A second server (e.g. the head end database server (HEDS) 14 at the top of

Figure 1) has a first database storing the first product related data and second product

related data. This second server corresponds to the recited fourth means in claim 72,

and this first database corresponds to the recited first means in claim 72. As also

described on pages 8-9 with reference to Figure 3, the HEDS receives the further

transmitted first product related request, transmits the stored first product related data

to the first server from which that request is received, and still further transmits the

received first product related request.

As also described on pages 9-10 with reference to Figure 4, a central server

(e.g. the Commerce Control Point Server (CCPS) 20 that forms part of the commerce

control point (CCP) 24) has a second database storing the first and the second product

related data. This central server corresponds to the recited fifth means in claim 72, and

this second database corresponds to the recited second means in claim 72. As

described, the CCPS 20 transmits the first and second product related data stored in

the second database (e.g. the CCPS 20 database), receives the still further transmitted

first product related request, and stores the received request in the second database

(e.g. the CCPS 20 database). The first and the second product related data stored in the first database (e.g. the HEDS 14 database) are the first and second product related data transmitted by the central server (e.g. the CCPS 20).

In regard to claim 73, a third server (e.g. another CAS 16 at the bottom of Figure 1) communicates with a second network device (e.g. another STB 18 at the bottom of Figure 1), receives a second product related request from the second network device (e.g. another STB 18), further transmits the received second product related request, receives the second product related data in response to the further transmitted second product related request, and transmits the received second product related data to the second network device (e.g. the other STB 18) in response to the received second product related request. This third server corresponds to the recited seventh means in claim 73.

A fourth server (e.g. the other HEDS 14 at the bottom of Figure 1) has a third database storing the first and the second product related data. The fourth server corresponds to the recited eighth means, and the third database corresponds to the recited sixth means. This other HEDS 14 receives the further transmitted second product related request, transmits the stored second product related data to the third server (e.g. other CAS 16) from which that request is received, and still further transmits the received second product related request. Additionally, the central server (e.g. the CCPS 20) receives the still further transmitted second product related request and stores that received request in the second database (e.g. the CCAS 20 database).

In view of the above, it is respectfully submitted that the specification does in fact include corresponding structure clearly associated in the specification with all claimed

functions in claim 72, as well as those in claim 73. Thus, claims 72 and 73 are definite and the rejection under 35 U.S.C. §112, second paragraph, is improper.

The Examiner has rejected claims 64 and 65 under 35 U.S.C. §112, second paragraph, in an omnibus fashion and accordingly the rejection cannot reasonably be understood. The Examiner has failed to address with any specificity whatsoever why these claims have been rejected. Accordingly, this rejection is improper.

As best understood, the Examiner rejects claim 32 as indefinite because he construes the claim phrase "only if" as an optional clause. As argued throughout prosecution, "only if" is not an optional clause. Claim 32 expressly requires that the first product related request be receivable from the one network device and the first product related data be transmittable to the one network device **only if** the one network device is tuned to one of the multiple broadcast channels. Claim 32 is only directed to the situation when the one network device is tuned to one of the multiple broadcast channels.

The Examiner's is attempting to transform claim 32 into a claim directed to a situation when the one network device is **not** tuned to one of the multiple broadcast channels. This transformation is clearly improper, as the claim clearly and unambiguously recites "**only if** the one network device is turned to one of the multiple broadcast channels", there is no alternative language recited, yet alone even implied, in the claim regarding the one network device **not** being turned to one of the multiple broadcast channels. Claim 32 is definite, and thus the rejection under 35 U.S.C. §112, second paragraph is improper.

Regarding the indefiniteness rejection of dependent claims 63 and 67, the Examiner argues that each does not include every limitation of the claim (claim 61) from which both depend. The Examiner's reliance upon MPEP §608.01(n)III (directed to a test for infringement) for his position is not understood. The Examiner seems to construe the recited one second server of claim 63 and the recited first database of claim 69 as excluding limitations associated with those components recited in claim 61. It is respectfully submitted that the Examiner has misconstrued these claims.

Neither of claims 63 and 67 excludes any limitation, functional, structural, or otherwise, from the claim from which each depends. That is, claim 63 includes all the limitations of claim 61, and claim 67 likewise includes all the limitations of claim 61. In particular, according to the plain and unambiguous language of claim 63, the one second server recited in claim 63 includes a high priority queue and a low priority queue, receives the transmitted first product related request, queues the received first product related request in one of the high and the low priority queues, further transmits the received first product related request, receives first product related data transmitted by the first server, and transmits the received first product related data to the one network device in response to the received first product related request. The further transmission of the first product related request is after a first time period after receipt of that request if the request is queued in the high priority queue, or after a second time period after receipt of that request if the request is queued in the low priority queue. Also, according to the plain an unambiguous language of claim 67, the first database stores first product related data, second product related data, and video programming schedule data.

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However, in an attempt to pass the present application to issuance, claims 63 and 67 were amended in the Amendment After Final to repeat certain limitations of claim 61. The Examiner refused entry of these Amendments, arguing that such would require further consideration. As will be understood from the above, the Amendment After Final added no new matter. Rather, claim limitations from a parent claim were merely repeated in dependent claims in an effort to satisfy the Examiner. Thus, no "further consideration" should have been required by the Examiner, as he should have already considered such limitations from the parent claim which were necessarily included in the dependent claims. The denial of entry was improper. In any event, claims 63 and 65 are definite notwithstanding the denial of entry. Accordingly, the rejection under 35 U.S.C. §112, second paragraph, is improper.

CONCLUSION

It is respectfully submitted that the Examiner (i) has failed to establish a prima facie case for the rejection, (ii) has proposed to combine art in a manner which is unmotivated, (iii) has failed to apply art which teaches or suggests the claimed invention, (iv) has, at best, attempted to improper reconstruct the invention using the inventors own disclosure or relied on pure speculation in rejecting the claims, and (v) has improperly rejected the claims under 35 U.S.C. §112, second paragraph. Thus, the rejection of the pending claims as anticipated under 35 U.S.C. §102(b) and/or as obvious under 35 U.S.C. §103(a) over the applied prior art, whether taken individually or in any combination, is improper. And also, the rejection of the claims under 35 U.S.C. §112, second paragraph is improper.

In summary, Applicants respectfully submit that the applied references do not teach or suggest features recited in each of the rejected independent claims, as well as those recited in numerous dependent claims. Furthermore, the proposed combinations of the applied references are themselves unmotivated and therefore improper. Accordingly, it is submitted that the art does not provide any teaching, or suggestion within its teachings, which would lead to the features or advantages of the instant invention, and the claims patentably define over the art. Thus, the rejection of the pending claims under 35 U.S.C. §103(a) is in error, and reversal is clearly in order and is courteously solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 01-2135 and please credit any excess fees to such deposit account.

Respectfully Submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

Sterling W. Chandler
Registration No. 51,370

Suite 1800
1300 North Seventeenth Street
Arlington, VA 22209
Telephone: (703) 236-6081
Facsimile: (702) 312-6666
E-mail: schandler@antonelli.com

APPENDIX OF CLAIMS UNDER APPEAL

29. An electronic commerce system for use in networks having a plurality of network devices, each representing a respective network user, comprising:

a first plurality of first servers, each configured to communicate with a first plurality of network devices associated with a first network, to receive a first product related request from one of the first plurality of network devices, to further transmit the received first product related request, to receive first product related data in response to the further transmitted first product related request, and to transmit the received first product related data to that one network device in response to the received first product related request;

a second server, having a first database storing the first product related data and second product related data, and configured to receive the further transmitted first product related request, to transmit the stored first product related data to the one of the first plurality of first servers from which that request is received, and to still further transmit the received first product related request; and

a central server, having a second database storing the first and the second product related data, and configured to transmit the first and second product related data stored in the second database, and to receive the still further transmitted first product related request and store the received request in the second database;

wherein the first and the second product related data stored in the first database are the first and second product related data transmitted by the central server.

30. A system according to claim 29, wherein each of the first plurality of first servers is further configured to transmit applications operable to receive the product related data.

31. A system according to claim 29, wherein the first product related request is one of a request to purchase a product and a request for information regarding the product itself.

32. A system according to claim 29, wherein the first product related request is receivable from and the first product related data is transmittable to the one network device only if the one network device is tuned to one of multiple broadcast channels.

33. A system according to claim 32, wherein the first product related data transmitted to the one network device is viewable in conjunction with video programming broadcast over the one channel.

34. A system according to claim 29, wherein the first plurality of network devices is a plurality of set top boxes.

35. A system according to claim 29, wherein the first network is a video broadcast network.

36. A system according to claim 29, wherein the first product related data is different than the second product related data.

37. A system according to claim 29, further comprising:

a second plurality of the first servers, each configured to communicate with a second plurality of network devices associated with a second network, to receive a second product related request from one of the second plurality of network devices, to further transmit the received second product related request, to receive the second product related data in response to the further transmitted second product related request, and to transmit the received second product related data to that one network device in response to the received second product related request; and

a third server, having a third database storing the first and the second product related data, and configured to receive the further transmitted second product related request, to transmit the stored second product related data to the one of the plurality of second servers from which that request is received, and to still further transmit the received second product related request;

wherein the central server is further configured to receive the still further transmitted second product related request and store that received request in the second database, and the first and the second product related data stored in the third database are the first and second product related data transmitted by the central server.

38. A system according to claim 29, wherein:

the one first server includes a high priority queue and a low priority queue and is further configured to queue the received first product related request in one of the high and the low priority queues; and

the second server is further configured to receive the further transmitted first product related request within a first time period after receipt of that request, if queued in the high priority queue, to receive the further transmitted first product related request within a second time period after receipt of that request, if queued in the low priority queue, wherein the second time period being longer than the first time period.

39. A system according to claim 38, wherein:

the high priority queue is a real time queue; and

the low priority queue is a batch queue.

40. A system according to claim 38, wherein:

the first product related request includes information indicative of response priority; and

the one first server is further configured to queue the first product related request received from the one network device in the one queue based on the indicated response priority.

41. A system according to claim 29, wherein the first product related data stored in the first and the second databases correspond to a preference of a user associated with the one network device.

42. A system according to claim 29, wherein:

the second database stores video programming schedule data;

the central server is further configured to transmit the video programming schedule data stored in the second database;

the second server is further configured to store the transmitted video programming schedule data in the first database, to generate trigger data based on the video programming schedule data stored in the first database, and to transmit other data indicative of the availability of the first product related data and the trigger data to the one first server; and

the one first server is further configured to receive the transmitted other data and trigger data, to transmit the other data and the trigger data to the one network station, responsive to which an icon is displayed at the one network station simultaneous with a display of broadcast video programming, and to receive the first product related request from the one network device responsive to the display of the icon.

43. A system according to claim 29, wherein:

the second database further stores video programming schedule data;

the central server is further configured to transmit the video programming schedule data stored in the second database;

the second server is further configured to store the transmitted video programming schedule data in the first database, and to transmit other data indicative of the availability of the first product related data and the stored video programming schedule data to the one first server; and

the one first server is further configured to receive the transmitted other data and schedule data, to transmit the other data and the schedule data to the one network station, responsive to which an icon is displayed at the one network station simultaneous with a display of broadcast video programming, and to receive the first product related request from the one network device responsive to the display of the icon.

44. A system according to claim 29, wherein:

the one first server is further configured to receive user related data corresponding to a user of the one network devices, and to further transmit the received user related data to the second server;

the second server is further configured to store the further transmitted user related data in the first database, and to transmit the stored user related data with the first product related request to the central server; and

the central server is further configured to store the user related data transmitted by the second server in the second database in association with the stored first product related request.

45. A system according to claim 44, wherein the user related information received by the one first server includes a unique identifier of the one network resource.

46. A system according to claim 44, wherein the user related information received by the one first server is received from at least one of the corresponding user and a broadcaster of video programming over the first network.

47. A system according to claim 44, wherein the central server is further configured to aggregate the user related data transmitted by the second server, to generate a user profile based on the aggregated user related data, and to select the first product related information based on the generated user profile.

61. An electronic commerce system, comprising:

a central server having an associated first database storing first product related data and second product related data;

a first server having an associated second database storing the first product related data and the second product related data;

a first network;

a first plurality of network devices, each connected to the first network and representing a respective network user, wherein one of the first plurality of network devices transmits a first product related request; and

a first plurality of second servers, each connected to the first network, wherein one of the first plurality of second servers receives the transmitted first product related request, and further transmits the received first product related request;

wherein the first server receives the further transmitted first product related request, transmits the first product related data stored in the second database in response to the received further transmitted first product related request, and still further transmits the received first product related request;

wherein the one second server receives first product related data transmitted by the first server, and transmits the received first product related data to the one network device in response to the received first product related request;

wherein the a central server receives the still further transmitted first product related request, and stores the received still further transmitted first product related request in the first database.

62. A system according to claim 61, further comprising:

a third server having a third database storing the first product related data and the second product related data;

a second network;

a second plurality of network devices, each connected to the second network and representing a respective network user, wherein one of the second plurality of network devices transmits a second product related request; and

a second plurality of the second servers, each connected to the second network, wherein one of the second plurality of the second servers receives the second product related request, and further transmits the received second product related request;

wherein the third server receives the further transmitted second product related request, transmits the second product related data stored in the third database in response to the received further transmitted second product related request, and still

further transmits the received second product related request;

wherein the one of the second plurality of the second servers receives the second product related data transmitted by the third server, and transmits the received second product related data to the one of the second plurality of network devices in response to the received second product related request;

wherein the central server receives the still further transmitted second product related request and stores the received still further transmitted second product related request in the first database.

63. A system according to claim 61, wherein:

the one second server includes a high priority queue and a low priority queue, queues the received first product related request in one of the high and the low priority queues, and further transmits the first product related request after a first time period after receipt of that request, if queued in the high priority queue, and after a second time period after receipt of that request, if queued in the low priority queue; and

the second time period is longer than the first time period.

64. A system according to claim 63, wherein:

the high priority queue is a real time queue; and

the low priority queue is a batch queue.

65. A system according to claim 63, wherein:

the first product related request includes information indicative of response priority; and

the one second server queues the received first product related request in the one queue based on the indicated response priority.

66. A system according to claim 61, wherein the first product related data stored in the first and the second databases correspond to a preference of the user represented by the one network device.

67. A system according to claim 61, wherein:

the first database stores video programming schedule data;

the central server transmits the video programming schedule data stored in the first database;

the first server receives the transmitted video programming schedule data, stores the received video programming schedule data in the second database, generates trigger data based on the video programming schedule data stored in the second database, and transmits other data, which represents an icon indicative of the availability of the first product related data, and the trigger data to the one second server;

the one second server receives the transmitted other data and trigger data, and further transmits the received other data and trigger data; and

the one network station receives the further transmitted other data and trigger data, displays the icon represented by the received other data simultaneously with broadcast video programming in accordance with the received trigger data, and transmits the first product related request based on user activation of the displayed icon.

68. A system according to claim 61, wherein:

the first database stores video programming schedule data;

the central server transmits the video programming schedule data stored in the first database;

the first server receives the transmitted video programming schedule data, stores the received video programming schedule data in the second database, and transmits other data , which represents an icon indicative of the availability of the first product related data, and the stored video programming schedule data to the one second server;

the one second server receives the transmitted other data and video programming schedule data, and further transmits the received other data and video

programming schedule data;

the one network station receives the further transmitted other data and video programming schedule data, displays the represented icon represented by the received other data simultaneously with a display of broadcast video programming in accordance with the received video programming schedule data, and transmits the first product related request based on user activation of the displayed icon.

69. A system according to claim 61, wherein:

the one second server receives user related data corresponding to the user represented by the one network device, and transmits the received user related data to the first server;

the first server receives the transmitted user related data, stores the received user related data in the second database, and further transmits the user related data with the still further transmitted first product related request; and

the central server receives the further transmitted user related data, and stores the received transmitted user related data in the first database in association with the stored first product related request.

70. A system according to claim 69, wherein the central server aggregates the user related data stored in the first database, generates a user profile based on the aggregated user related data, and selects the first product related data based on the generated user profile.

71. A system according to claim 61, wherein:

the central server transmits the first and the second product related data stored in the first database; and

the first server receives the first and the second product related data transmitted by the central server and stores the received first and second product related data in the second database.

72. An electronic commerce system, comprising:

first means for storing first product related data and second product related data;

second means for storing the first and the second product related data

third means for receiving a first product related request from a first user, further transmitting the received first product related request, receiving first product related data in response to the further transmitted first product related request, and transmitting the received first product related data to the first user in response to the received first product related request;

fourth means for receiving the further transmitted first product related request, transmitting the first product related data stored at the first means to the third means in response to the received further transmitted first product related request, and still further transmitting the received first product related request; and

fifth means for receiving the still further transmitted first product related request, and storing the received still further transmitted first product related request at the second means.

73. A system according to claim 72, further comprising:

sixth means for storing the first and the second product related data

seventh means for receiving a second product related request from a second user, further transmitting the received second product related request, receiving the second product related data in response to the further transmitted second product related request, and transmitting the received second product related data to the second user in response to the received second product related request; and

eight means for receiving the further transmitted second product related request, transmitting the second product related data stored at the sixth means to the seventh means in response to the received further transmitted second product related request, and to still further transmit the received second product related request;

wherein the fifth means receives the still further transmitted second product related request and stores the received still further transmitted second product related request at the second means.